Citizen Science Projects (MOOC) 2.4

Woods, Mel; Coulson, Saskia; Ajates, Raquel; Amditis, Angelos ; Cobley, Andy; Domian, Dahlia

Publication date:
2020

Like Murphy's Law says: what can go wrong, will go wrong!

But if you have a good plan and a motivated community, challenges in collecting data are easy to overcome. Let's go over some of the common pitfalls and share tips that can help.

##Helpful resources

People who join citizen science campaigns for the first time might not be familiar with ways to collect data. To some, this might seem like a daunting task. To help your participants along, provide helpful resources such as onboarding kits or sensing manuals. The [Citizen Sensing: A Toolkit](https://discovery.dundee.ac.uk/en/publications/citizen-sensing-a-toolkit) provides an introduction to many tools and is a helpful guide for anyone looking to start a citizen science project. WeObserve also has a [Toolkit](https://www.weobserve.eu/knowledge-base/toolkit/) on its website with tools from all the Citizen Observatories.

The GROW Observatory also created an online course on [FutureLearn](https://www.futurelearn.com/courses/grow-earth-sensor) to help growers measure soil moisture and quality. These are just a few examples of step-by-step guides that help citizen scientists use technology and follow data collection processes.

##Explaining the technology

Calibration and technology maintenance during a campaign can be challenging. Many different devices help participants collect data, and these don't always work the first time. You have to keep an eye on them to make sure they are working correctly. Knowing your sensor before you begin is key. Host a community meeting (online or face-to-face) to introduce the technology, explain how to use it and show everyone how to connect it to the data collection platform. This meeting gives everyone a chance to share their concerns before data collection begins. If possible, invite a technology expert so that they can show everyone how to use the sensor, mobile application or platform. They can also help to answer any questions or discuss common pitfalls and how to overcome them.

##Create a sensing strategy

Having target measurements and a sensing strategy can also help a community to discuss what should be measured, when, where, how and by whom. Having a map of the geographic area where you would like to collect data allows everyone to pinpoint the location where they can capture data. Another useful tool is a calendar, where everyone can decide on the best dates and times for recording measurements.

Knowing what types of data to collect is just as important as having a good plan for collecting them. It's not always about capturing data solely on your environmental concern. Other types of

complementary data can give insight into the issue or help participants see where positive changes can be made. In the next step, we will share some details on how to use community-level indicators, which can help you to unpack the environmental concern you are working on.

##Share your experiences!

+ Have you ever used a new device for collecting data? If so, please share your experiences in the comments below.